**Temporomandibular joint- TMJ**

TMJ is a synovial joint

Modified hinge joint with two movements

• Pivot or rotation

• Glide or translation

Articular surfaces

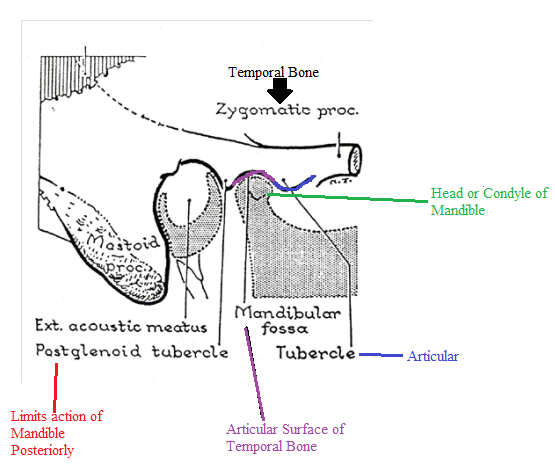
1. Head or condylar process of mandible

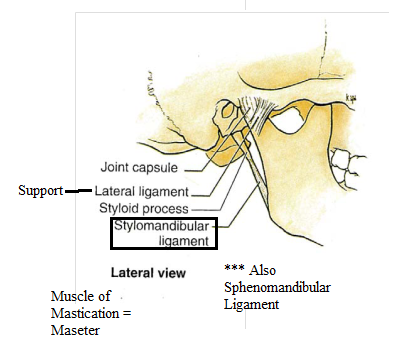
2. Mandibular fossa of temporal bone

Other important features

1. Articular tubercle of temporal bone

2. Postglenoid tubercle of temporal bone





Support for the TMJ

1. Joint capsule

2. Lateral ligament

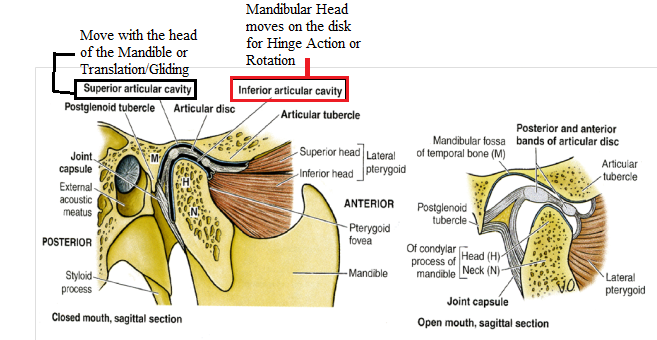
3. Stylomandibular ligament

4. Muscles of mastication

Articular disk- divides joint into two spaces;

1. Superior joint space- gliding movement

2. Inferior joint space- hinge movement



What is the function of the articular disk?

Innervation to the TMJ

Branches of the mandibular nerve 🡪 Any Branch of the CN V3 division that is nearby is innervating it

Normal movements at the TMJ in mouth opening

• Step1 Rotation (depression) of the mandible- here the mandibular head hinges (rotates) on the articular disk 🡪 mouth opens to about 22mm

• Step 2 Gliding or translation – of the mandible – now the articular disk and mandibular head “slide” as a unit (protraction) forward into the articular tubercle

• Step 3 Final rotation - the mandibular head rotates further for complete opening of the mouth

Mouth Closed

Step 1

Step 2 & 3

Dislocation of the TMJ

* Head forced anterior to articular Tubercle
* Muscles of mastication go into spasm
* Treatment must pulls down on jaw and force back into place
  + Use muscle relaxer to relax jaw muscles
* TMJ Syndrome = one ligament holding articular disk is torn
  + Clicking sound = when head of mandible and articular disk become dislocated

